1. (Amended) A method for fabricating a metallization structure, comprising:

ion metal plasma depositing a wetting layer within a cavity of a dielectric layer;

applying a sufficient bias power to splash deposited metal at the bottom of the cavity to sidewalls of the cavity; and

sputter depositing, within a single chamber, substantially an entirety of a bulk metal layer upon the wetting layer.

3. (Amended) The method of claim 1, wherein said sputter depositing comprises sputter depositing the bulk metal layer within the cavity until the cavity is substantially filled.

4. (Amended) The method of claim 1, wherein said wetting layer comprises titanium.

5. (Amended) The method of claim 1, wherein the topography comprises a lower portion of a microelectronic topography below said dielectric layer, and wherein said ion metal plasma depositing a wetting layer comprises depositing the wetting layer upon sidewalls of the cavity and upon an upper surface of the microelectronic topography directly below the cavity.

7. (Amended) The method of claim 1, wherein said ion metal plasma depositing a wetting layer comprises:

applying a sufficient DC power to a target to induce sputtering of metal atoms from the target and towards a pedestal below the topography, wherein the sputtered metal atoms comprise titanium;

applying a sufficient RF power to an induction coil between the target and the pedestal to ionize at least a portion of the metal ions sputtered from the target; and

applying the sufficient pedestal bias power to the pedestal to direct the ionized metal atoms towards the dielectric layer in a direction substantially normal to the dielectric layer.

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8. (Amended) The method of claim 1, wherein the cavity comprises a via in the dielectric layer and extending to a conductive region of the topography.

9. (Amended) The method of claim 1, further comprising pre-cleaning said topography prior to said ion metal plasma depositing.

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12. (Amended) A method for fabricating a metallization structure, comprising:

Sub B2

in a first deposition chamber, ion metal plasma depositing a wetting layer comprising titanium within a cavity in a dielectric layer above a microelectronic topography;

in a second deposition chamber, sputter depositing at a first temperature a first portion of a bulk metal layer comprising aluminum within the cavity; subsequently

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in said second deposition chamber, sputter depositing at a second temperature a second portion of the bulk metal layer within the cavity; and subsequently

in said second deposition chamber, sputter depositing at a third temperature a third portion of the bulk metal layer upon said second portion, wherein said third temperature is lower than the second temperature.

13. (Amended) The method of claim 12, wherein said sputter depositing at the first temperature comprises depositing the first portion of the bulk metal layer under conditions that do not significantly reflow the first portion of the bulk metal layer immediately after being deposited.

14. (Amended) The method of claim 12, wherein said sputter depositing at the second temperature comprises depositing the second portion of the bulk metal layer under conditions that reflow the second portion of the bulk metal layer immediately after being deposited.

15. (Amended) The method of claim 12, wherein said sputter depositing at the first temperature comprises applying a first DC power to a target in the second deposition chamber, and wherein said sputter depositing at a second temperature comprises applying a second DC power to the target, wherein said first DC power is greater than said second DC power.

Sub B3

16. (Amended) The method of claim 12, wherein said sputter depositing at the second temperature further comprises depositing the second portion of the bulk metal layer upon the first portion of the bulk metal layer, and wherein said sputter depositing at the first temperature comprises depositing the first portion of the bulk metal layer upon the wetting layer.

A17 Cont'd

17. (Amended) The method of claim 12, wherein said sputter depositing at the first temperature comprises depositing the first portion of the bulk metal layer upon the wetting layer, and wherein said sputter depositing at the second temperature substantially fills the cavity.

18. (Amended) The method of claim 12, wherein said sputter depositing at the first temperature is the first deposition process performed after said ion metal plasma depositing a wetting layer.

Please add the following claims.

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21. (Added) The method of claim 1, ~~wherein said applying occurs at least partly during said~~ ion metal ~~plasma~~ depositing the wetting layer.

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22. (Added) The method of claim 12, wherein the second temperature is higher than the first temperature.

23. (Added) The method of claim 12, wherein said third portion comprises approximately 50% of said bulk metal layer.

24. (Added) A method for fabricating a metallization structure, comprising:

ion metal plasma depositing a wetting layer upon a topography;

applying a gas to the backside of the topography; and

sputter depositing substantially an entirety of a bulk metal layer upon the wetting layer.

25. (Added) The method of claim 24, wherein said applying occurs at least partly during said ion metal plasma depositing the wetting layer.

26. (Added) The method of claim 25, wherein said applying comprises applying approximately 15 sccm of said gas during said ion metal plasma depositing the wetting layer.

A18 Cont'd

27. (Added) The method of claim 24, wherein said applying occurs at least partly during said sputter depositing the bulk metal layer.

28. (Added) The method of claim 27, wherein said sputter depositing comprises depositing a first portion of said bulk metal layer at a first temperature absent of said applying.

29. (Added) The method of claim 27, wherein said sputter depositing comprises depositing a second portion of said bulk metal layer at a second temperature, and wherein said applying comprises applying between approximately 36 sccm and approximately 44 sccm of said gas during said depositing the second portion.

30. (Added) A method for fabricating a metallization structure, comprising:

etching a cavity comprising a base and opposing sidewalls within a dielectric of a topography;

ion metal plasma depositing a wetting layer consisting essentially of titanium on and in contact with the base and the sidewalls of said cavity; and

sputter depositing substantially an entirety of a bulk metal layer on and in contact with the wetting layer.